

MurGame: Protect your village from debris flows!

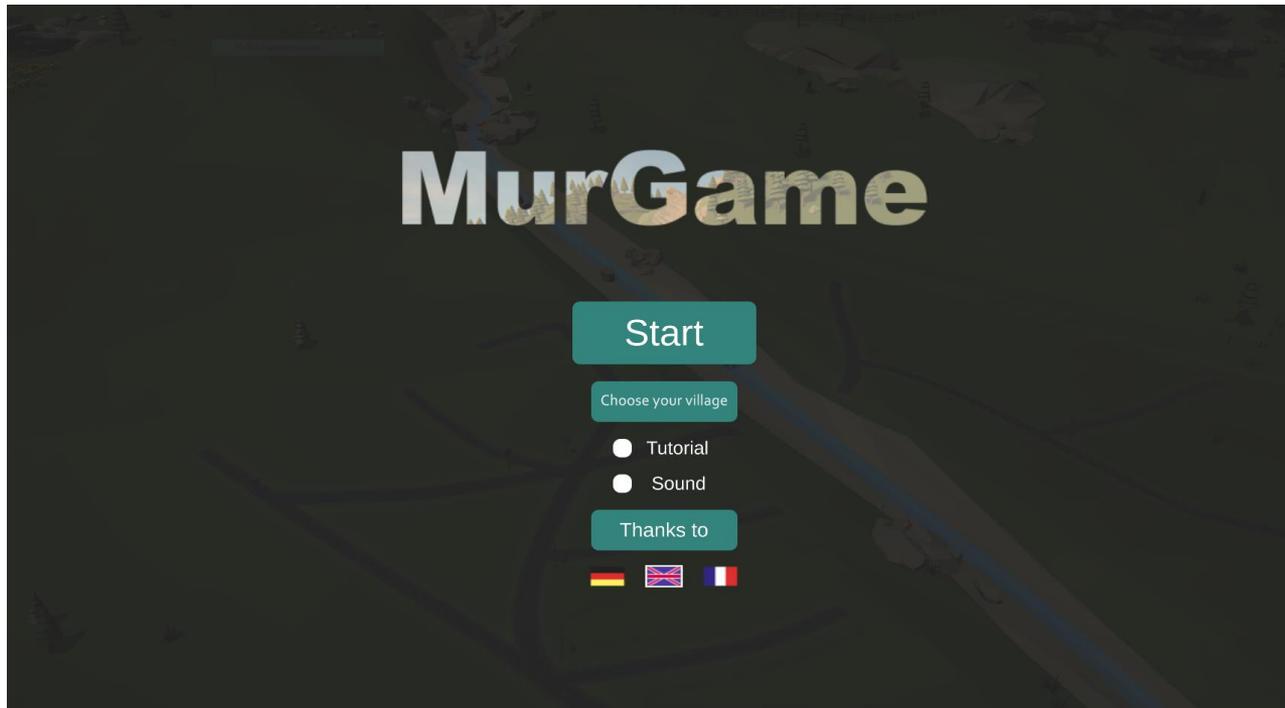
Game ideas

MurGame Release 2.0 / August 2021



The Murgame is available online

www.murgame.ch

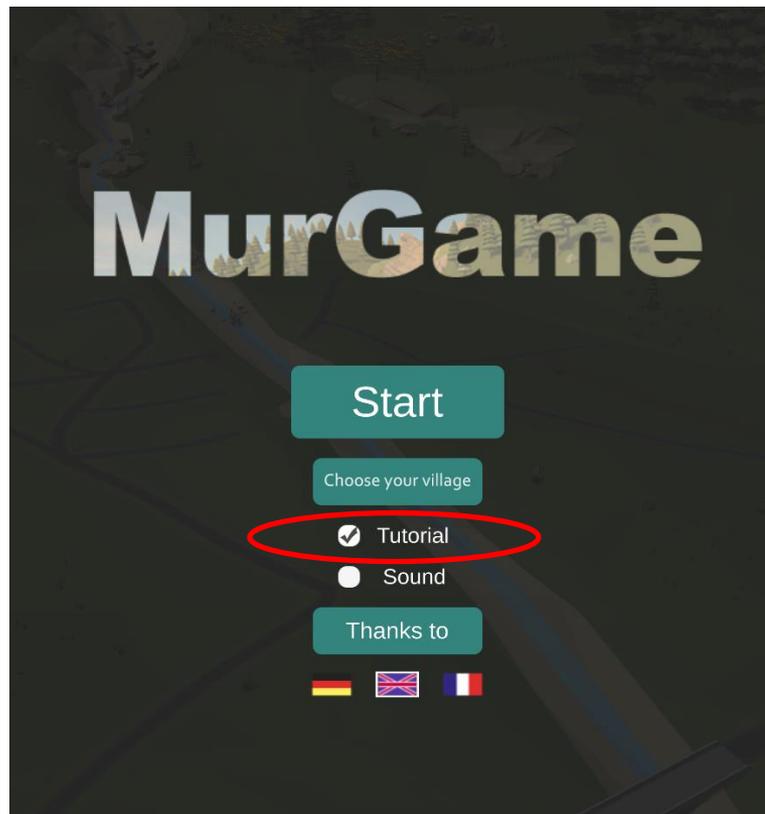


Contact for questions: murgame@geo7.ch



Get started with the tutorial.

Play a first round while receiving a broad overview



Source for icons: www.flaticon.com



Documented game variations :

1. Focus on single main game objective
 - Economic efficiency (1a)
 - Damage (1b)
 - Acceptance (1c)
2. Optimisation for several main game objectives
 - Economic efficiency, damage, acceptance
3. Budget limitation
4. Focus on themes
 - Types of measures (4a)
 - Bridge (4b)

→ Suggestion: During tutorials you can start a competition.
The team with the best solution wins.



Goal: The village, incl. its protection measures, is optimally designed in terms of economic efficiency.



Framework conditions:

The objects can be chosen freely. Object numbers, costs and inhabitants are not additionally limited.



Results:

What's the level of the achieved economic efficiency?

But: what about damage and acceptance?



Goal: The village incl. its protection measures is optimally designed with regard to the remaining damage.



Framework conditions :

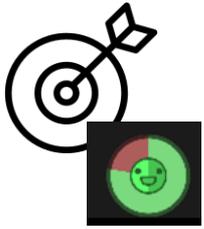
The objects can be chosen freely. Object numbers, costs and inhabitants are not additionally limited.



Results:

What's the remaining extent of damage??

But: what about economic efficiency and acceptance?



Goal: The village incl. its protection measures is optimally designed in terms of acceptance.



Framework conditions :

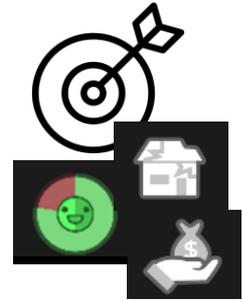
The objects can be chosen freely. Object numbers, costs and inhabitants are not additionally limited.



Results:

What's the level of acceptance among the population?

But: What about economic efficiency and damage?



Goal: The village incl. its protection measures is optimally designed in terms of acceptance, economic efficiency and remaining damage.



Framework conditions :

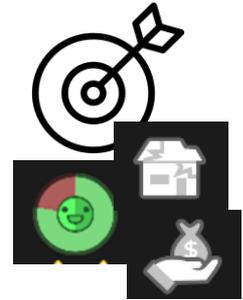
The objects can be chosen freely. Object numbers, costs and inhabitants are not additionally limited.



Results:

What's the range of the achieved values?

What compromises had to be made (in order to keep the balance?)



Goal: Find the ideal balance between acceptance, economic efficiency and remaining damage with a budget of 15 million Swiss Francs for your buildings, housing units and protective measures.



Framework conditions :

Budget: 15 million Swiss Francs

Free choice of objects. No additional limitation on object numbers, costs or inhabitants.



Results: What's the range of the achieved values?

What compromises had to be made (in order to keep the balance?)



Goal: The village is only protected with spatial planning and organisational measures.



Framework conditions :

Organisational measures and spatial planning (i.e. relocating buildings / no buildings on certain plots) only.

Free choice of all other objects. No additional limitation on costs or inhabitants.



Result: Is it possible to ensure a satisfying amount of protection?



Goal: Identify the different effects of small and large bridges during the event of a debris flow.



Framework conditions :

Phase 1: built a small bridge.

Phase 2: built a larger bridge.

All other objects can be chosen freely. Number, inhabitants and costs are not additionally limited.



Result: Is it possible to ensure a satisfying amount of protection with a small bridge over the stream?



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The developers:

